

The *Parent Coping Scale* (PCS)

An overarching measure of impact for parenting support services working to improve parental self-efficacy

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Background and Technical information

Below you will find information on the background to the *Parent Coping Scale* and how to use and analyse it.

More detailed information about how the *Parent Coping Scale* was used in an empirical study can be found in Moran P. and Ghate D. (2013) *Development of a single overarching measure of impact for Home-Start UK: a feasibility study* available on the web at: http://www.cevi.org.uk/docs/Impact_Measure_Report.pdf

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Origins of the *Parent Coping Scale (PCS)*

The *Parent Coping Scale* is adapted from a measure known as ‘Coping with Being a Parent’ (Ghate and Hazel; 2002). ‘Coping with being a Parent’ was originally created for a large scale nationally representative survey of stress and coping among parents in Britain living in poor neighbourhoods, funded by the British Department of Health. The original measure has since been used in many other large studies of families in the UK including national evaluations of parenting support programmes (Aye Maung, Parfremment and Tipping 2008; Ghate, Asmussen, Tian and Hauari 2008; Ghate and Ramella 2002). In these studies, differences in coping among parents were typically found to be positively associated with a number of parent and child difficulties including a tendency to parental depression as measured by the Malaise Inventory (Rutter, Tizard and Whitmore 1970), and having a child with behavioural or emotional difficulties as measured by the Strengths and Difficulties Questionnaire (SDQ, Goodman 1997), as well as with the need for and use of different forms of informal, semi-formal and formal parenting support.

What is the *Parent Coping Scale (PCS)*?

The *Parent Coping Scale (PCS)* is designed to be used as a measure of change, in contrast to ‘Coping with being a Parent’ which has primarily been used as a descriptive measure. The **PCS** can be used as a single measure of overarching *impact*, and is intended for the evaluation of parenting support services where improved *parenting self-efficacy* or improved self-perception of *coping with parenting* is an overarching aim. *Impact* is a term we use to describe the ‘sum of the parts’ of multiple outcomes: that is, the overarching, ‘high-level’ effect of a service that may be targeting a number of subsidiary outcomes. Outcomes, by contrast, relate to changes over time in specific ‘domains’ of functioning or life circumstances (e.g., parents’ methods of discipline, children’s behaviour, mothers’ mental health, and so on).

The *Parent Coping Scale* is a brief, single-item scale measuring parents’ self-reported ability to cope with parenting. The **PCS** measures how parents assess their own capabilities, rather than how parents behave. It generalises well to a wide variety of parenting contexts. It is framed in plain colloquial English, prefaced by a normalising permission-giving statement and allows positive as well as negative reports. It is also well-tested, easy and very quick to administer and complete, simple to understand, highly acceptable to parents, easy to score and analyse, and psychometrically robust. It is therefore suited to a wide variety of research contexts. It is suitable for use by parenting and family support organisations wishing to carry out self-evaluations of their effectiveness. It is also cost-effective to use in independently-conducted research studies or evaluations.

The **Parent Coping Scale** consists of a series of five simply phrased statements that together form a 5-point scale, from coping very poorly to coping very well. It is a *global*, domain non-specific measure of the construct of *self-efficacy* (Bandura 1977).

Global means that it is used in relation to the parenting role in general, rather than with regard to specific domains of parenting (e.g care, discipline, education). The **PCS** can be used in relation to parenting of a specified child, or as a composite, overarching measure in relation to parenting multiple siblings of varying ages.

Self-efficacy for parents has been defined as the beliefs or judgements a parent holds of their capabilities to organise and execute a set of tasks related to parenting a child (De Montigny and Lacharite, 2005, p 390). It concerns not only possession of skills, but also a person's beliefs that he or she can integrate them into an appropriate course of action. *Coping with parenting*, as measured by the **PCS**, is defined by us as: *a parent's self-belief that they have the ability successfully to manage the tasks and other aspects associated with being a parent.*

Examples of other commonly used global parental efficacy measures include the *Parental Sense of Competence Scale* (Gibaund-Wallson and Wandersman, 1978, cited in Johnson and Mash, 1989); the Competence subscale of the *Parenting Stress Index* (Abidin, 1983); and the *Parenting Self-Agency Measure* (Dumka et al, 1996), all of which are US-developed measures. UK-developed scales include the *Tool to Measure Parental Self Efficacy (TOPSE)* (Kendall and Bloomfield, 2005) and a single-item measure of *Coping with Being a Parent* developed by Ghate and Hazel (2002).

How is the **Parent Coping Scale (PCS)** used?

The **Parent Coping Scale** can be used in both survey and experimental research designs. It can be used descriptively, to establish base rates of coping within general ('normal') populations, as well as in high-need groups of parents. It can provide an indication of baseline needs (for example, needs in relation to support for parenting). It can also be used for measuring change over time, for example to evaluate the impact of a support intervention, and shows good sensitivity to detect statistically significant change even in a relatively small sample. It can be self-administered (paper and pencil; computer-assisted) or interviewer-administered (face to face; by telephone).

How is the *Parent Coping Scale (PCS)* analysed?

The *Parent Coping Scale* is simple to score and analyse. The score for an individual parent is simply the number that the parent circles on the five point response scale. Scores for a group of parents can be analysed, or else groups of parents can be compared, either with themselves over time, or with another group of parents.

Analysing scores for a group of parents

A number of descriptive statistics can be used to summarise the scores from a group of parents. These include:

Frequencies and percentages

Frequencies involve recording the *number of parents* who rate themselves on the five different responses within the scale. This information can also be expressed in percentages, reflecting the *proportion of parents* who rate themselves on the different scale responses.

Mean, median and mode

To give an indication of the central or typical score for a group of parents, the mean (or average) of the scores can be used, as well as the median and mode. To calculate the mean, add together all the parents' scores and divide by the number of parents who provided scores. To calculate the median, list each parent's score from smallest to largest, and find the middle score. To find the mode, look for the score most often rated, i.e. the most frequently occurring scale response.

Range and standard deviation

It is also useful to know how spread out parents' scores are from the central value, and this can be indicated by the *range* and the *standard deviation*. The range tells us the difference between the minimum and maximum scores rated, calculated by subtracting one from the other. The standard deviation tells us about the average difference between each parent's score and the average score of the group. The larger the standard deviation, the more spread out parents' scores are likely to be. The smaller the standard deviation, the closer each parent's score is likely to be to the average for the group. Standard deviations can be calculated using statistical calculators as well as statistical packages such as Excel and SPSS, as can all of the above statistics.

Comparing groups of parents or parents over time

When research and evaluation involves the comparison of ratings from the *same group of parents* over time, for example, before and after a support service has been provided, the Wilcoxon Signed Ranks test can be used to check whether parents' scores have changed. This

statistical test looks at both the *direction of change in score* for each parent (i.e. whether there is improvement, no change or deterioration) as well as the *magnitude or size of any change* in score for each parent. This test is available within statistical packages such as Excel and SPSS.

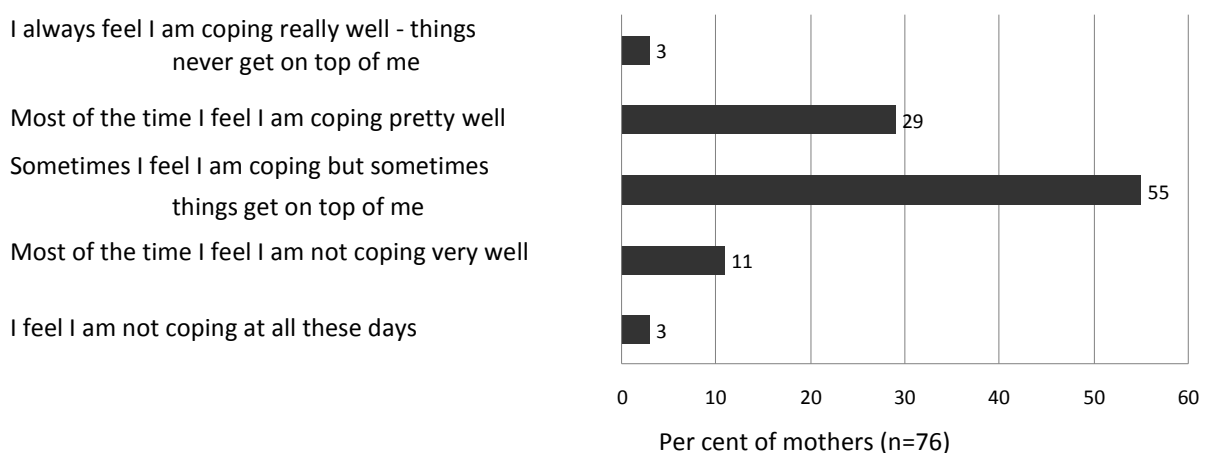
When comparison of scores from *different groups of parents is required*, the Wilcoxon Rank Sum test (sometimes called the Mann-Whitney test) can be used to check whether the scores from the groups of parents differ significantly. This test compares the groups of parents by ranking their scores. This is also available within a number of statistical packages.

There are, in addition, many ways in which the measure can be used in analysis of more complex data sets. For example, the scale scores can be used as they are, or recoded to a binary format, and used as a dependent or outcome measure in cross sectional or regression analyses. This will enable exploration of how other factors that have been measured are associated with, or are predictive of, coping better or worse. See Ghate and Hazel (2002), Chapter 10, for examples of other approaches.

What results does the *Parent Coping Scale (PCS)* produce?

The *Parent Coping Scale* has not yet been ‘normed’ in large scale general population studies. In a sample of 76 mothers in Northern Ireland, who were accessing a family support service, distribution at the baseline measurement point (late 2011) is shown in Figure 1:

Figure 1. Responses to the *Parent Coping Scale* in sample of 76 mothers



In addition, the original measure on which the **PCS** is substantially based has been used in several large scale studies in Great Britain (the largest of which surveyed around 1750 parents) and in the Republic of Ireland, in cross-sectional, cohort and quasi-experimental studies, and in community as well as service user samples. These data can be used as proxy standards until further research is completed on the **PCS** itself. See for example in Britain: Ghate and Hazel (2002); Aye Maung, Parfremment and Tipping (2008); and in Ireland: Ikos Research and Consultancy Ltd and Mary Immaculate College (2012).

Psychometric properties of the *Parent Coping Scale*

The *Parent Coping Scale* has been shown to have excellent measurement properties, following extensive testing in a cohort of 76 high-need parents over a six-month period including three follow-up time points (Ghate and Moran, 2013).

Face and content validity (how well the measure captures what it sets out to measure)

These aspects of validity are judged to be high. This is based on feedback from volunteers and professionals working with parents who reviewed the measure and approved it for use with families with whom they were working, and on parents' own feedback that the measure was easily understandable and 'made sense' to them. The behaviour of the original measure from which the **PCS** is adapted, viewed in relation to other relevant variables that are expected to be related to coping, also provides evidence of the validity of the measure. For example, in previous studies that used the 'Coping with Being a Parent' measure, higher and lower levels of coping were significantly associated in the predicted direction with numerous other factors thought to present a risk to coping: for example poor parental mental health, having a large family, having a child with behavioural difficulties, and living in poverty or under various other forms of strain (Ghate and Hazel, 2002, p191)

Concurrent criterion validity (how well the measure performs relative to other gold-standard measures of the same construct)

We have not tested the *Parent Coping Scale* against complex measures of coping since it was designed specifically to overcome some of the disadvantages of these longer scales. The study for which the **PCS** was developed tested two alternative measures alongside the **PCS**, including one of the popular, shorter measures of self-efficacy, the PSAM (Parenting Self Agency Measure, Dumka et al, 1996). The degree of association between the measures was tested using Spearman's rho, in which a higher value indicates a stronger association. The results gave a correlation co-efficient between PSAM and **PCS** scores for a sample of 75 parents of 0.54, which was statistically significant at the $p < .01$ level (2-tailed test). This result shows the measures are strongly conceptually related, though not identical.

Reliability and stability (how reproducible the results are; or how stable the measure is, over multiple administrations).

An assessment of the test-retest reliability of the *Parent Coping Scale* was carried out in order to confirm the stability of the measure. Parents attending group meetings in two family support projects based in one region of England were asked to complete the **PCS** on two separate occasions, one week apart. Results for a sample of 34 parents show an intra-class correlation coefficient of 0.93, with 95% confidence limits of 0.86 to 0.97. This correlation coefficient indicates that the measure shows excellent reliability (values are typically considered good in such tests if they equal or exceed 0.7).

Predictive validity (the ability of the measure to forecast future outcomes)

The predictive validity of the **PCS** has not yet been assessed, as 'coping' in the study for which the **PCS** was developed was used as an outcome in its own right, rather than as a predictor of other outcomes. Based on the behaviour of the measure from which the **PCS** is adapted, the predictive validity of the **PCS** is assumed to be high. It is plausible to expect scores on the measure to predict other positive outcomes, both for parents and for children. However, this remains to be verified in further empirical research, and requires formal logical modelling of the pathway through coping (as an intermediate or mediating variable) to other positive changes for parents and children.



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The Colebrooke Centre would appreciate notification of use of the *Parent Coping Scale*, and we welcome information and feedback about its performance in the field: admin@cevi.org.uk

The *Parent Coping Scale*

Most people find that being a parent has its ups and downs. Taking everything into account, which of these statements best describes how you are coping with being a parent these days?

Circle one number:

1. I feel I am not coping at all these days
2. Most of the time I feel I am not coping very well
3. Sometimes I feel I am coping but sometimes things get on top of me
4. Most of the time I feel I am coping pretty well
5. I always feel I am coping really well – things never or hardly ever get on top of me

Thank you for your help